

REMARKS

In response to the Office Action mailed April 7, 2003, Applicant respectfully requests reconsideration. To further the prosecution of this application, each of the issues raised in the Office Action are addressed herein. Claims 1-10 were previously pending in this application. By this amendment, claims 1 and 10 have been amended. New claims 11-31 have been added. As a result, claims 1-31 are pending for examination with claims 1, 10 and 27 being independent claims. The application as presented is believed to be in allowable condition.

I. Rejections Under 35 U.S.C. §102

The Office Action rejected claims 1-10 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,271,735 to Halamik et al. (hereinafter Halamik). Applicant respectfully traverses this rejection.

Halamik discloses an oscillator controller that provides an oscillating signal output, accomplished by charging capacitor 114 until it reaches a first reference voltage V_{high} , and then discharging capacitor 114 until it reaches a second reference voltage V_{low} (col. 5, lines 33-52). Reference voltages V_{high} and V_{low} are alternately imposed by switching between a pair of transistors 90 and 94, respectively (col. 4, lines 20-49). Halamik teaches that by using identical transistors 90 and 94 to set V_{high} and V_{low} , the difference between V_{high} and V_{low} will remain constant, being equal to a reference voltage V_{ref} . Specifically, Halamik states in col. 4, lines 49-54:

Thus, if transistors **90** and **94** are identical and are placed near each other in the integrated circuit, then their gate-to-source voltages will be substantially equal and will track with temperature and process variations. Hence, the difference between V_{high} and V_{low} , equation (2)- equation (3) is V_{ref} , the voltage potential supplied by voltage generator **88**, and is independent of temperature and circuit process variations. (emphasis in original).

For this reason, Halamik matches transistor components to ensure that the voltage difference between V_{high} and V_{low} remains constant. Halamik is completely silent with respect to compensating for changes in temperature by varying the voltage difference between a first threshold voltage and a second threshold voltage. In fact, the temperature independence of the

oscillator disclosed in Halamik depends on the voltage difference (i.e., $V_{\text{high}} - V_{\text{low}}$) remaining constant.

Claim 1, as amended, recites a capacitor, a capacitor charging means arranged to supply a current to charge the capacitor to a first predetermined threshold voltage, a capacitor discharging means arranged to discharge the capacitor to a second predetermined threshold voltage, and a switching means arranged to switch between a capacitor discharging mode and a capacitor charging mode responsive to reaching at least one of said threshold voltages, wherein the at least one threshold voltage is determined by a threshold setting means which provides a voltage threshold which varies to compensate for changes in temperature by varying a voltage difference between said first predetermined threshold voltage and said second predetermined threshold voltage.

Nowhere does Halamik teach or suggest setting means which provide a voltage threshold which varies to compensate for changes in temperature “by varying a voltage difference between said first predetermined threshold voltage and said second predetermined threshold voltage,” as recited in claim 1. Therefore, claim 1 patentably distinguishes over Halamik and is in allowable condition.

Claims 2-9, and 11-14 depend from claim 1 and are allowable for at least the same reasons.

Claim 10, as amended, recites a capacitor, a capacitor charger arranged to supply a current to charge the capacitor to a first predetermined threshold voltage, a capacitor discharger arranged to discharge the capacitor to a second predetermined threshold voltage, and a switch arranged to switch between a capacitor discharging mode and a capacitor charging mode responsive to reaching at least one of said threshold voltages, wherein the at least one threshold voltage is determined by a threshold setting means which provides a voltage threshold which varies to compensate for changes in temperature by varying a voltage difference between said first predetermined threshold voltage and said second predetermined threshold voltage.

Nowhere does Halamik teach or suggest setting means which provide a voltage threshold which varies to compensate for changes in temperature “by varying a voltage

difference between said first predetermined threshold voltage and said second predetermined threshold voltage,” as recited in claim 10. Therefore, claim 10 patentably distinguishes over Halamik and is in allowable condition.

Claims 15-26 depend from claim 10 and are allowable for at least the same reasons.

II. New Claims

New claims 11-31 have been added to further define Applicant's contribution to the art. Claims 11-14 depend from claim 1 and are patentable for at least the same reasons discussed above in connection with claim 1. Claims 15-26 depend from claim 10 and are patentable for at least the same reasons discussed above in connection with claim 10.

New independent claim 27 recites a method for providing an oscillating voltage signal comprising acts of increasing a voltage signal until the voltage signal reaches a first threshold voltage, decreasing the voltage signal until the voltage signal reaches a second threshold voltage, and varying a difference between the first threshold voltage and the second threshold voltage in response to changes in temperature. Nowhere does Halamik teach or suggest, “varying a difference between the first threshold voltage and the second threshold voltage in response to changes in temperature,” as is recited in claim 27. Therefore, claim 27 patentably distinguishes over Halamik and is in allowable condition.

Claims 28-31 depend from claim 27 and are allowable for at least the same reasons.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

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